

REMARKS

This Amendment is made in response to the Official Action mailed November 28, 2008. Claims 1-30 and 39 have been cancelled. Claims 31, 44 and 45 have been amended. Accordingly, claims 30-38 and 40-47 are now pending in this application. Reconsideration and withdrawal of the objections to and rejections of this application are respectfully requested in view of the above amendments, and further, in view of the following remarks.

Preliminarily, process claim 31 has been in order to clarify that the sections are moved closer together in the second stage while the molded plastic is still hot and malleable. Further, apparatus claim 44 has been amended in order to clarify that the apparatus includes a means to inject an elastomeric material into the mold cavity. Support for this language can be found in the specification at page 8, lines 5-12 and page 9, lines 10-15. Still further, apparatus claim 45 has been amended to in order to clarify those parts of the toothbrush which are enclosed within the mold cavity.

Claims 31-34 and 43 have been rejected under 35 USC § 102(e), as being anticipated by U.S. Publication No. 2004/0177462, filed March 14, 2003, in the name of Brown et al. ("Brown"). Specifically, the Action asserts that Brown teaches a method for making a toothbrush having a split head comprising two sections integrally connected to a handle, which method has a step in the injection molding process wherein the head sections are spaced apart from each other (paragraph 39) and then moved together (paragraph 43). Reconsideration and withdrawal of the rejection are respectfully requested.

In the toothbrush manufacturing process of Brown two distinct sequential process steps are used, as described in paragraphs [0009] and [0041-0043] and Figs. 6-7. First, the toothbrush head is made with its head sections 20 and 22 splayed apart. Second, the brush is then removed from the mould and heat 42 (see, Fig. 7) is re-applied to the junction between the head 16 and the neck 14 of the toothbrush to soften the plastic in this region. Then, after the second heating step, when the plastic is softened, the sections 20 and 22 are moved closer together.

Claim 31 has been amended in order to clarify that the process of making the disclosed toothbrush has two steps; (1) making the sections of a thermoplastic material in a mould in an injection moulding process with the sections flexibly integrally linked to each other and relatively spaced apart from each other in a widthways direction; and (2) taking the

freshly moulded toothbrush head while it is still hot from the mould so its plastic is still soft, and without the second heating step of Brown, the head sections are moved together.

Since Brown fails to teach or suggest each and every element of the claimed invention, it can not be said to anticipate this application. Favorable reconsideration and withdrawal of the rejection under Section 102(e) are requested.

Claims 44-47 have been rejected under 35 U.S.C. §102(b), as anticipated by U.S. Patent 5,171,066, issued December 15, 1992, to Klinkhammer ("Klinkhammer"). In particular, the Action asserts that Klinkhammer teaches an apparatus for making a toothbrush with a head containing multiple sections, wherein the apparatus is adapted to move the head and neck part of the sections 18 closer together (see, Figs. 24-26). Reconsideration and withdrawal of the rejection are respectfully requested.

Claim 44, as amended, clarifies that the claimed apparatus includes means to inject an elastomeric material into the mould cavity around and/or between the sections. In contrast, Klinkhammer discloses an apparatus for making toothbrushes with a head in multiple sections, in which the multi-section head is made with its sections 18 first flat as shown in Fig. 24. Then these sections 18 are pressed between clamp parts 150, 152. These are not molded parts as contemplated in the present invention. The pressure applied by rotary platens 146 and 148 forces the sections 18 against "saddles" 156 which, as shown in Fig. 26, fold the sections closer together. Klinkhammer discloses nothing about the temperature at which the folding process is performed, let alone whether the plastic material is hot and malleable.

Since Klinkhammer fails to teach or suggest each and every element of the claimed invention, it can not be said to anticipate this application. Favorable reconsideration and withdrawal of the rejection under Section 102(b) are requested.

Claims 35 and 36 have been rejected under 35 U.S.C. §103(a), as being unpatentable over Brown in view of U.S. Patent 5,407,254, issued April 18, 1995, to Hegemann ("Hegemann"). Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 35 and 36 refer to the spacing apart of the sections of the toothbrush head in directions parallel to the bristle direction and around a solid angle, respectively. Brown was discussed above. The Action acknowledges that Brown does not disclose a toothbrush head made with its sections spaced apart in a direction parallel to the bristle direction. Neither does Brown disclose a head with its sections spaced apart in a solid angle.

Hegemann discloses a toothbrush head with sections which are first integrally made then are broken off and re-attached to the toothbrush handle. The two outer sections 14 and 16 are displaced in a direction parallel to the bristle direction and about a solid angle.

Brown does not disclose the present claimed operating conditions of claim 31, and therefore does not make claim 31 obvious. Consequently, claims 35 and 36, which depend from claim 31, are not obvious over Brown. Hegemann only discloses a process in which the sections are broken off and re-attached to the toothbrush handle. In requiring such multiple steps the process of Hegemann is consequently much more complex than the present claimed process.

Therefore, one of skill in the art would not look to the teaching in Hegemann to modify the teaching in Brown in order to arrive at the instant invention. Favorable reconsideration of the rejection under Section 103(a) is requested.

Claims 37, 38 and 39 have been rejected under 35 U.S.C. §103(a), as unpatentable Brown. In particular, the Action asserts that while Brown does not specifically teach the size of the gap between the two sections, it is "apparent from figures 1, 2 and 4 that the two sections are very close together and would be within the 0.5 mm distance." The Action also alleges that the sections "appear to be touching" and are at least within sliding contact when the sections are flexed. A conclusion is then made that the sections have a "very small" gap between them and it would be an obvious matter of design choice at the time of the invention to choose an appropriate small gap. Reconsideration and withdrawal of the rejection are respectfully requested.

Present claims 37 and 38 refer respectively to the distance between the sections, respectively less than 0.5mm, and in sliding contact with each other. Since these claims depend from amended claim 31, which Applicants assert is not obvious in view of Brown, they too are not obvious.

Claim 39 has been cancelled making the rejection moot. Claim 31 has been amended by clarifying that the process of making the disclosed toothbrush has two steps; (1) making the sections of a thermoplastic material in a mould in an injection moulding process with the sections flexibly integrally linked to each other and relatively spaced apart from each other in a widthways direction; and (2) taking the freshly moulded toothbrush head while it is still hot from the mould so its plastic is still soft the head sections are moved together. The Examiner alleges that it would be obvious to simply use the residual heat of the moulded sections of Brown and to move the hot sections closer together, in the manner of the present claimed invention.